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**TELEFAX COVER SHEET****TO:**  
Examiner Chen-Wen Jiang**FROM:**  
Howard A. MacCord, Jr.**ORGANIZATION/FIRM:**  
US PTO (Art Unit 3744)**DATE:**  
February 16, 2005**FAX NUMBER:**  
(703) 872-9306**RECIPIENT'S PHONE NUMBER:**  
(703) 308-0275**TOTAL # OF PAGES**  
(Including Cover): 3**YOUR E-MAIL ADDRESS:****RE:**  
RESPONSE TO FIRST OFFICE ACTION of November 16, 2004 re: Serial No. 10/713,803;  
Filed November 14, 2003; Our File No. 8529-001**NOTES/COMMENTS:**Confidentiality Notice

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Rajiv K. Karkhanis  
Serial No.: 10/713,803  
Filed: November 14, 2003  
Confirmation No.: 4477  
For: **EVAPORATIVE HEAT REJECTION**

Examiner: Chen Wen Jiang  
Art Unit: 3744

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

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Sir:

**RESPONSE TO FIRST OFFICE ACTION**

Responsive to the Office Action mailed November 16, 2004, Applicant respectfully traverses the rejection of the claims over the Chiu, et al. reference. The Office Action cited three Chiu, et al. references, two of which to be equivalents, namely U.S. Patent 6,101,823 and British Patent 2365955. The other Chiu reference is U.S. Patent 6,338,256.

Applicant's invention provides evaporative condensing apparatus including absorption material with a water system that applies water to the absorptive material in a sufficient quantity that the water wets the absorptive material, keeps the absorptive material wet from the upper portion to the lower portion, and even with evaporative losses of water, excess water remains to carry dissolved solids to the collector, and in turn, to a drain. This carries the solids away so that they do not deposit on the tubing or absorptive material and interfere with heat exchange.

The Chiu references do not address solids, or avoiding their buildup.

The Chiu '823 reference teaches that the water is to be supplied in an amount so that it is fully evaporated (See column 1, lines 49-50). At column 4, lines 4-10, the '823 patent teaches that the amount of cooling water supplied from the water supply system 40 to the evaporative condensing unit 20 can be controlled approximately equal to the amount of water being evaporated during the operation of the machine. There is a passage at column 3, lines 13-16 suggesting possible reuse of excess water, but there is no teaching to direct the excess water to a drain as Applicant claims. Instead, excess water is allowed to be reused.

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This allows the concentration of dissolved solids to increase as evaporation continues, leading to even more scale build up on the tubing. Thus, Chiu et al. '823 teaches to evaporate all of the water on the evaporative material, or to recycle any excess. Either result leads to the build up of excess solids.

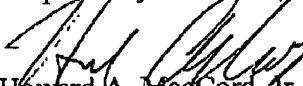
The Chiu, et al. '257 patent is no more pertinent. The amount of water supplied by the apparatus of the '257 patent is discussed at column 5, line 34 through column 6, line 11. The '257 patent teaches to periodically apply water. If the water amount is insufficient, as indicated by a rise in the internal temperature above a threshold, the duty cycle of the water supply is increased. At column 6, lines 9-12 the Chiu, et al. '257 patent says to provide water such that the water is timed to be fully evaporated. This, of course, will lead to the deposit of any dissolved solids on the machine.

At column 5, lines 41-44 another mode of operation is disclosed providing for continuous operation of the water supply for cleaning the apparatus only during maintenance. While the Chiu, et al. patent does not say exactly what that water does, maybe that is the way Chiu, et al. '257 addresses the solids problem-- by trying to re-dissolve the solids later during down time. At any rate, it does not operate in the manner claimed by Applicant's claims.

Accordingly, the withdrawal of the rejections over the Chiu, et al. references is respectfully requested. The indication of allowability of claims 5, 6, 12, 14-18 and 21 is appreciated, but is believed that the other claims are also allowable.

Should the Examiner have any small matters requiring resolution, he is encouraged to telephone the undersigned for expeditious handling.

Respectfully submitted,

  
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